

IN THE CLAIMS:

1. (Original) Method for controlling a first robot (1) and at least one other robot (2), the at least one other robot (2) being calibrated relative to the first robot by the determination of at least one coordinate transformation (SF1-2) of the first robot relative to at least one other robot and said at least one transformation (SF1-2) is stored in a control device (2.1) of the other robot, wherein also the first robot (1) is calibrated relative to the other robot (2) by the determination of at least one independent coordinate transformation (SF2-1) and said at least one independent transformation (SF2-1) is stored in a control device of the first robot.

2. (Original) Method according to claim 1, wherein in the case of at least three robots, each robot is calibrated relative to the others by at least one independent determination of coordinate transformations and the at least one transformation of the calibration of each robot is stored in a control device thereof.

3. (Original) Method according to claim 1, wherein for each robot several calibrations are performed each at different positions and the thus obtained transformations (SF2-1, SF1-2) are stored.

4. (Currently Amended) Method according to claims claim 1, wherein the calibrations for each robot (1, 2) are performed at different positions.

5. (Original) Method according to claim 1, wherein in the case of cooperative operation of at least two robots (1, 2), the coordinates of the independent robot (1, 2) and the coordinates transformed relative thereto (on the basis of SF2-1 or SF1-2) of the independent robot or robots (2, 1) are used.

6. (Currently Amended) Method according to claim 3, wherein in operating in an area dependent manner, the coordinates of one robot and the coordinates of one or other robots transformed thereto are used.

7. (Original) Method according to claim 1, wherein in the cooperative operation of at least two robots (1, 2) as desired, one (1, 2) of the robots is used as the independent robot and the at least one other robot (2, 1) as a dependent robot.

8. (Original) Method according to claim 7, wherein during an operating process the characteristic of the robots (1, 2) as an independent or dependent robot is changed.

9. (Original) System for controlling a first robot (1) and at least one other robot (2) with at least one control means (1.1, 2.1) with a device (2.2) for calibrating at least one other robot (2) relative to the first robot (1) by determining at least one coordinate transformation (SF1-2) of the first robot (1) relative to the other robot (2) and with a memory means (2.3) in
5 the control device (2.1) of the other robot (2) for storing said at least one transformation

(SF1-2), having determination means (1.2) for calibrating the first robot (1) relative to the other robot (2) by determining at least one independent coordinate transformation (SF2-1) of at least one other robot (2) relative to the first robot (1) and by a memory means (1.3) in a control device (1.1) of the first robot (1) for storing at least one independent transformation (SF2-1).

10. (Original) System according to claim 9, with at least three robots, wherein each of the robots (1, 2) in its control device (1.1, 1.2) has a means for its calibration (1.2, 1.2) relative to each of the other robots (2, 1) by determining at least one coordinate transformation (SF2-1, SF1-2) relative to each of the other robots (2, 1), as well as a memory means (1.3, 2.3) for
5 storing the in each case at least one coordinate transformation (SF2-1, SF1-2).

11. (Original) System according to claim 9 designed for calibrating each robot (1, 2) by several transformations and for the storage of several such transformations.

12. (Original) System according to one of the claims 9 to 11, designed for calibrating the robots (1, 2) at different locations.

13. (Original) System according to claim 9, characterized by the use of the coordinates of an independent robot and the transformed coordinates of the at least one dependent robot during cooperative operation of at least two robots.

14. (Original) System according to claim 9, designed for using the coordinates of one robot and the coordinates of the other robot or robots transformed relative thereto in different areas of operation.

15. (Currently Amended) System according to claim 9, ~~designed for changeable use of~~ wherein one robot is selected as an independent robot and the at least one other robot as a dependent robot during cooperative operation of at the least two robots.

16. (Currently Amended) System according to claim 15, ~~wherein designed for changing~~ the a characteristic of the robots as independent or dependent robots is changeable during an operating process.

17. (New) A system for controlling plural robots for cooperative function, the system comprising:

a first robot with an associated first robot memory and first robot control device;

a second robot with an associated second robot memory and second robot control device;

a device connected to the second robot for calibrating the second robot relative to the first robot by using measured second robot position coordinates to determine at least one first to second coordinate transformation of the known first robot position relative to the measured second robot position coordinates with the first to second coordinate transformation being

10 stored in said second robot memory,

a device connected to the first robot for calibrating the first robot relative to the second robot by using measured first robot position coordinates to determine at least one second to first coordinate transformation of the measured second robot position relative to the known first robot position coordinates with the second to first coordinate transformation being stored in
15 said first robot memory.

18. (New) A system according to claim 17, wherein for each of the first robot and the second robot, the position of the other robot at calibration is known based on the each robot being at a known location including touching another object or touching the other robot wherein the first and second robots are used in cooperative operation with one an independent
5 robot and the other a dependent robot with spatial dependency wherein the dependent robot's operation is directly dependent on the position of the independent robot and the coordinates of the independent robot are used and the transformed coordinates of the dependent robot are used relative to the independent robot on the basis of the second to first coordinate transformation or first to second coordinate transformation.

19. (New) A system according to claim 18, further comprising:
a third robot with an associated third robot memory and a third robot control device;
a device connected to the third robot for calibrating the third robot relative to the first and second robots by using measured third robot position coordinates to determine first and

5 second to third coordinate transformations of the known first and second robot position relative to the measured third robot position coordinates with the first and second to third coordinate transformations being stored in said third robot memory, wherein said first robot memory stores a third to first coordinate transformation and the second robot memory stores a third to second coordinate transformation.

20. (New) A system according to claim 18 wherein several transformations are established between said first robot and said second robot including transformations based on calibrating the first and second robots at different locations.